

Commonwealth of Kentucky
Division for Air Quality
RESPONSE TO COMMENTS

ON THE TITLE V DRAFT PERMIT V-05-070

East Kentucky Power Cooperative, Inc.

JK Smith Generating Station

Clark County, KY

May 31, 2006

Timothy J. Rust, Reviewer

SOURCE I.D. #: 021-049-00027

SOURCE A.I. #: 808

ACTIVITY #: APE20050002

SOURCE DESCRIPTION:

East Kentucky Power Cooperative, Inc. is an existing source with natural gas fired peaking units for electricity generation at the J.K. Smith Generating Station in Clark County, Kentucky. The source has two operating permits that have undergone public and U.S.EPA review (01-07-1993 and 06-13-2001 respectively), however, the final Title V permits were not issued. The first construction operating permit was issued on March 24, 1993 (C-93-045) for the construction and operation of five simple cycle combustion turbines. Three (3) ABB GT 11N2 and one (1) General Electric 7EA combustion turbines were constructed and are currently being operated. The second prevention of significant deterioration (PSD) construction/operating permit was issued on July 27, 2001 (V-01-004) for the additional construction and operation of three (3) General Electric 7EA combustion turbines. The seven total units are each capable of burning both natural gas (more than 90% of the time) or #2 fuel oil (less than 10% of the time) and are all currently in commercial operation. A Title V Permit application for emission units 1-4 (combustion turbines SCT 1, SCT 2, SCT 3, and SCT 4) received on June 29, 1999 was called administratively complete on August 28, 1999 but has not been drafted or issued. A Phase II acid rain application for the emission units 1-4 (combustion turbines SCT 1, SCT 2, SCT 3, and SCT 4) received on May 17, 2000 has not been drafted or issued. The Phase II acid rain application for emission units 5-7 (combustion turbines SCT 5, SCT 6, and SCT 7) received on March 7, 2000 was also not drafted or issued along with the issuance of the PSD permit (V-01-004) for those units.

The Division will issue a source-wide proposed permit to incorporate the construction permit, PSD permit, draft Phase II Acid Rain and draft NOx Budget permits for all combustion turbines (CTs). Given the details stated above, the Phase II Acid Rain and the NOx Budget permit sections of the permit will have the draft watermark to indicate that the public has not reviewed this portion of the combined permits. The new facility permit number V-05-070, will consolidate the authority of any previously issued construction, PSD permit terms and conditions for the various emission units and incorporate all requirements of those existing permits into one single permit for this source. For continuity, the most current log number and the completeness dates will be used as general numbers for this permit.

PUBLIC AND U.S. EPA REVIEW:

On March 20, 2006, the public notice on availability of the draft permit and supporting material for comments by persons affected by the plant was published in *The Winchester Sun* in Clark County, Kentucky. The public comment period expired 30 days from the date of publication.

Comment received

Comments were received from East Kentucky Power Cooperative, Inc. on April 19, 2006. Attachment A to this document lists the comments received and the Division's response to each comment. No changes were made to the permit as a result of the comments received. Please see Attachment A for a detailed explanation of the responses. The permit is now being issued as a proposed permit. The U.S. EPA has 45 days from the date of the issuance to submit comments. If no comments are received during this period, the Division will consider the permit final as conditioned.

ATTACHMENT A

Response to Comments

Comments on East Kentucky Power Cooperative, Inc.'s JK Smith Generating Station Draft Title V Air Quality Permit submitted by Mike Binkley for Robert E. Hughes, Jr., Manager Environmental Affairs.

Title V Permit

1. Emissions Unit Nos. 1-4 (SCT01-SCT04)—Operating Limitations

EKPC has requested a change for Unit No. 4 minimum load. EKPC has requested that the Unit No. 4 be allowed to operate at and above 55% minimum load after a starting run up to maximum operating load. Stack testing shows that Unit No. 4 is in compliance, with permit emission limits, at 45% load and above. A minimum 55% load limit would give a 10% safety margin.

2. Emissions Unit Nos. 5-7 (SCT5, SCT6, and SCT7)—Operating Limitations

EKPC has requested a change for Unit Nos. 5-7 minimum load. EKPC has requested that the Unit Nos. 5-7 be allowed to operate at and above 55% minimum load after a starting run up to maximum operating load. Stack testing shows that Unit No. 4 is in compliance, with permit emission limits, at 45% load and above. A minimum 55% load limit would give a 10% safety margin.

Division's response: The Division does not have authority under New Source Performance Standards 40 CFR 60 subpart GG to grant a change in operational loading conditions for these combustion turbines which were previously permitted. These requests have been forwarded to the USEPA for consideration, which may or may not result in a determination that these requests be considered a major revision. As such, the permit was not changed to accommodate these requested lower operating load limits and is being proposed as written. EKPC may petition the USEPA at a later date to modify the final issued permit per the requests stated above.

CREDIBLE EVIDENCE:

This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has not incorporated these provisions in its air quality regulations.